

IN THE CLAIMS

Please cancel claims 13, 14, 18, and 19.

A marked-up version of the claims, showing changes made, may be found in Appendix A, attached hereto. Below is a clean set of all pending claims, submitted under 37 C.F.R. §1.121(c)(3), incorporating any additions, cancellations, and amendments thereto. Please substitute these claims for pending claims of the same number.

1. A method of executing a sequence of instructions comprising:
 - determining a predicted predicate value for a predicate;
 - and
 - conditionally executing a predicated instruction depending on the predicted predicate value.
2. (Once Amended) The method of claim 1, further comprising:
 - executing an instruction to compare two values to determine an actual predicate value for the predicate;
 - comparing the actual predicate value to the predicted predicate value; and
 - flushing a pipeline if the predicted predicate value and the actual predicate value are unequal.
3. The method of claim 2, further comprising executing the predicated instruction after flushing the pipeline.

4. The method of claim 2, wherein flushing the pipeline consists of flushing only a backend portion of the pipeline.
5. The method of claim 2, further comprising updating historical information using the actual predicate value corresponding to the predicate in a predicate table.
6. The method of claim 1, further comprising storing the predicted predicate value in a file after determining the predicted predicate value and before conditionally executing the predicated instruction.
7. The method of claim 1, wherein determining the predicted predicate value includes calculating the predicted predicate value using historical information corresponding to the predicate.
8. (Once Amended) The method of claim 7, wherein determining the predicted predicate value includes reading the historical information corresponding to the predicate in a predicate table.
9. The method of claim 1, wherein conditionally executing the predicated instruction includes executing the predicated instruction if the predicted predicate value is true.

10. The method of claim 1, wherein conditionally executing the predicated instruction includes treating the predicated instruction like a no-op if the predicted predicate value is false.
11. A processor comprising:
a predicate table; and
a predicate prediction calculator having an input coupled to an output of the predicate table.
12. The processor of claim 11, further comprising a speculative predicate register file having an input coupled to an output of the calculator.
15. A processor comprising:
a predicate table to store historical information corresponding to a predicate;
and
a pipeline coupled to the table, the pipeline to receive a predicted predicate value calculated from the historical information, and to conditionally execute a predicated instruction depending on the predicted predicate value.
16. The processor of claim 15, further comprising a predicate prediction calculator to calculate the predicted predicate value.

17. The processor of claim 15, further comprising a speculative predicate register file to store the predicted predicate value.
20. The processor of claim 15, wherein the predicate table is to further store historical information corresponding to a plurality of predicates.